

AMENDMENTS TO THE CLAIMS

1 (Currently Amended). An implant comprising a biocompatible flexible polymer matrix ~~sized and configured to be implanted in animal tissue~~, and a plurality of magnetic particles bound with the biocompatible flexible polymer matrix in a spaced apart relationship and being magnetized to possess a desired polarity, the biocompatible flexible polymer matrix allowing flexure between the magnetic particles and being sized and configured for implanting in a tissue region along a pharyngeal conduit to magnetically interact with a source of magnetic force.

2 (Original). An implant according to claim 1, wherein the magnetic particles comprise isotropic or anisotropic materials.

3 (Original). An implant according to claim 1, wherein the magnetic particles comprise a material selected from the group of NdFeB, SmCo, ferrite, and alnico.

4 (Currently Amended). An implant according to claim 1, wherein the biocompatible flexible polymer matrix includes a material selected from the group of polycarbonate, silicone rubber, polyurethane, silicon elastomer, flexible plastic, and semi-flexible plastic.

5 (Canceled).

6 (Currently Amended). An implant according to claim 1, wherein the biocompatible flexible polymer matrix includes a tissue in-growth region.

7 (Currently Amended). An implant according to claim 1, wherein the magnetic particles form regions of different particle densities within the biocompatible flexible polymer matrix.

8 (Currently Amended). An implant according to claim 1, wherein the magnetic particles comprise an essentially uniform particle density within the biocompatible flexible polymer matrix.

9 (Currently Amended). An implant according to claim 1, further including at least one discrete permanent magnet encapsulated within the biocompatible flexible polymer matrix with the magnetic particles, the biocompatible flexible polymer matrix allowing flexure among the magnetic particles and the at least one discrete permanent magnet.

10 (Original). An implant according to claim 9, wherein the permanent magnet and the magnetic particles are magnetized to have a common polarity.

11 (Currently Amended). An implant according to claim 1, further including at least one polymer-bonded magnet encapsulated within the biocompatible flexible polymer matrix with the magnetic particles, the biocompatible flexible polymer matrix allowing flexure among the magnetic particles and the at least one polymer-bonded magnet.

12 (Original). An implant according to claim 11, wherein the polymer-bonded magnet and the magnetic particles are magnetized to have a common polarity.

13 (Currently Amended). An implant according to claim 1, further including a flux shield comprising a soft ferromagnetic material coupled to the biocompatible flexible polymer matrix.

14 (Currently Amended). An implant according to claim 1, wherein the desired polarity establishes a desired magnetic pole, and further including at least one stabilization magnet coupled to the biocompatible flexible polymer matrix, the stabilization magnet including a magnetic pole that is the same as the desired magnetic pole and that is oriented normal or at an acute angle to the desired magnetic pole.

Claims 15 to 23 (Canceled).

24 (Currently Amended). A magnetic force system comprising
an implant ~~as defined in claim 1 or 15 or 20 implanted in animal tissue~~ comprising a biocompatible flexible polymer matrix, and a plurality of magnetic particles bound with the biocompatible flexible polymer matrix in a spaced apart relationship and being magnetized to possess a desired polarity, the biocompatible flexible polymer matrix allowing flexure between the magnetic particles and being sized and configured for implanting in a tissue region along a pharyngeal conduit, and

a source of magnetic force sized and configured for placement to magnetically interact with the implant ~~when implanted in tissue~~ to resist collapse of the tissue region.

Claims 25 to 44 (Canceled).

45 (New). An implant according to claim 1
wherein the biocompatible flexible polymer matrix is sized and configured for implantation in one of a pharyngeal wall; a tongue; a vallecula; a soft palate; a uvula; a palatine tonsil; and an epiglottis.

46 (New). A system according to claim 24

wherein the biocompatible flexible polymer matrix is sized and configured for implantation in one of a pharyngeal wall; a tongue; a vallecula; a soft palate; a uvula; a palatine tonsil; and an epiglottis.

47 (New). An implant according to claim 1

wherein the desired polarity establishes a desired magnetic pole.

48 (New). A system according to claim 24

wherein the desired polarity establishes a desired magnetic pole that magnetically interacts with the source of magnetic force.